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## ORIGINAL DEPARTMENT.

### LECTURES.

#### LECTURES ON THE SURGICAL DISEASES OF CHILDREN.\*

##### LECTURE I.

##### Hydrocephalus.

Translated by J. J. RADCLIFFE, M. D.

GENTLEMEN:—The presence in our wards of a child suffering from hydrocephalus, offers me an opportunity to entertain you with this disease. As is the case with some other diseases, it is placed on the boundary line between medicine and surgery. According to the same precision, however, different reasons would make it to rank rather in surgical pathology; for example, the nature of the treatment we use to combat it.

Hydrocephalus is either acute or chronic, acquired or congenital. Chronic hydrocephalus is known by its different causes, such as the morbid products in the cranial cavity, etc.

Congenital hydrocephalus may be considered as one of the more important varieties of the chronic form. Symptomatic or idiopathic chronic hydrocephalus possesses special characters which distinguish it from a pathological condition, with which we nevertheless often confound it. I mean cerebral hypertrophy. In fact, the cranium invests the brain, according to the different aspects of each case. Some examples will better enable you to understand these modifications.

A child entered the children's hospital presenting hydrocephalic symptoms. Its head was very large in circumference; the frontal and parietal eminences were very pronounc-

ed. Fontanelles and sutures were closed. The child died. At the autopsy, I found a considerable development of the brain, a remarkable augmentation of the convolutions, and complete absence of fluid in the ventricles, and in the arachnoid cavity. We had in this case hypertrophy of the brain, an affection pointed out and described lately by Laennec. (*Jour. of Med and Phar.*, vol. xi.)

In another child the head presented a similar development. But the hydrocephalus in this case was real, for we noticed, besides the increase of size and the deformity, an abnormal enlargement of the sutures and fontanelles. The cranial cap appeared to be composed of one half of bone and the other half of fibrous membrane.

That you may the better understand my description, I pass before you for your observation a series of illustrations intended to exhibit the anatomical conformation of the cranium. They relate to congenital hydrocephalus. In all of these the cranium is thin, the sutures are separated. The fontanelles are largely increased in size. The cranium as a whole has a singular arrangement. The bones are isolated from one another, and scattered like islands in the midst of the membrane which bounds, to a great extent, the cranial vault.

In another cranium pertaining to a child suspected of hydrocephalus, and which, in reality, was a case of cerebral hypertrophy, you see on its entire surface a great number of transparent points, in the plane of which the osseous substance is extremely thin. In a more marked degree these points will be complete perforation.

In congenital hydrocephalus, I repeat, the fontanelles are enlarged; the sutures are not ossified, or at least are only partially so; the

\*Clinical Lectures on the Surgical Diseases of Children, delivered by M. J. Géraudès, Surg-on to the Hospital for Sick Children, Associate Professor of the Faculty of Medicine of Paris, etc., etc. Collected and published by M. M. Bourneville & E. Bourgeois, Internes, and reviewed by the Professor. Paris, 1869.

bones become thin, are reduced to a simple lamella analogous to an eggshell. Likewise the head acquires extraordinary proportions.

The medical report of Dr. Bright contains the history of an hydrocephalic individual named Cardinal. His head measured 34 inches in circumference. He died at the age of 24 years; a fact that by inclusion demonstrates that life is not incompatible with hydrocephalus.

At the museum of St. George's Hospital, London, is seen the head of an hydrocephalic subject that died at the age of seven months; the head measured 32 inches in circumference. The museum of the College of Surgeons of the same city possesses three or four examples of the same kind.

Let us see now where is located the fluid that causes such a singular increase of the head. Is it collected in the arachnoid cavity, or accumulated in the ventricles? Both conditions are observed.

If the fluid is confined in the cavity of the arachnoid, it compresses little by little the cerebral mass; alarming symptoms supervene, and soon the patient sinks. Such was the action of the fluid in an enormously hydrocephalic patient who remained a long time in this hospital, and who we called noddle-headed (*cabochon*). He died at the age of four years. The progress of the disease will be more rapid, if the sutures being firm, the pressure is exercised uniformly over the brain.

When the hydrocephalus is ventricular, it presents several varieties. If the dilatation operates uniformly on both sides of the head, it will in its deformity maintain a certain symmetry. The dilatation, and consequently the accumulation of the fluid, is sometimes limited to a portion of the lateral ventricles. If the hydrocephalus affect the anterior cornu of the ventricles the head will have externally the appearance of a Scotch cap, or there will be two strong projections separated by a depression.

At other times, gentlemen, the dilatations bear on the middle part of the ventricles; we should say that the head is formed of four eminences, disposed in the form of a cross. Or, again, it is the posterior or occipital cornu that is distended by the liquid. From that we have a new form of the cranium.

When the hydrocephalus occupies on both sides the same portion of the ventricles, the head, we know, will preserve a certain sym-

try. It is not so when the hydrocephalus is limited to one of the ventricles, or to one of its cornua. There is a disproportion, and that disproportion ought to be known, for it may be the source of error. We may be disposed to take, for example, partial hydrocephalus of this kind, for encephalocele.

We will notice finally a last variety. The lateral region of the cranium, the temporal fossa yielding to the intercranial pressure, the parietal bones resisting above in consequence of the ossification of the corresponding sutures. The malformation reveals, in this occurrence, a singular and odd form of the head. M. HEWETT has published, in the first volume of St. George's Hospital Reports, a case of this description.

The multiplicity of forms that the head presents in hydrocephalus has given rise to strange mistakes. MORTON, in his work entitled *Crania Americana*, points out, as characteristics of race, cases of cranial malformation, which, in my opinion, should be reported as cases of hydrocephalus. This is not, moreover, the only anthropologist who has fallen into this false interpretation. You will find in the description of some other anthropologists examples of cranial malformations which are known to be occasioned only by morbid affections.

What becomes of the brain in hydrocephalus? Compressed most generally internally and externally, it is spread out by a process analogous to that employed by GAUL in his researches on the nervous system. That eminent anatomist introduced the fingers into the ventricular cavity, and by light pressure flattened the brain out like a napkin without a fold. In hydrocephalus the furrows of the convolutions disappear, and finally the fluid is confined, after the manner of a cyst, in a large sack formed by the cerebral substance. ROSEN ROSENSTEIN has already pointed out that particular condition. Some places in the sack are sometimes so thin that perforations take place, establishing a way of communication between the ventricles and the arachnoid cavity. From these conditions grave symptoms arise, and death ensues. Such was the step which followed the condition of the young man Cardinal, of whom I have just spoken to you.

The quantity of the fluid contained in the ventricles is extremely variable. In one case CRUIKSHANK collected 27 litres; M. DUPAUL,

from a child of seven months, 500 grammes. With regard to the principal elements that enter into its composition, we find in notable proportions, albumen, chloride of sodium, and potassium, urea, etc.

However it may be, the exaggerated development of the cranium alters strangely the physiognomy of the hydrocephalic child, and imprints on different organs changes which it is important to mention.

If really, gentlemen, you have examined attentively the child in the St. Paul ward, it has not been difficult for you to see that, by reason of the swelling of the head, the eyes are constrained in their movements. They are directed downward, and partly covered by the inferior eyelids; the white of the eye only is visible, and likewise defects of vision result. In the beginning the child's attention is not fixed on any object. Its gaze is vague and uncertain. Then the sight grows weaker, and finally is lost. Often also there is strabismus. Compression of the optic nerves will easily explain this phenomenon. Under its influence pathological changes take place. The roots of the optic nerve are atrophied, lesions that we very soon prove true, by examining the papilla of these nerves by the aid of the ophthalmoscope. That physical examination has only, with the rest, a moderate importance. We know, *a priori*, that these lesions ought to be so produced, in consequence of the force exercised on the optic nerves. From that we have atrophy of these nerves. The employment of the ophthalmoscope is then useless.

Besides the visual disorders which we have related, we observe dilatation of the pupils, which exists at this time in our patient. We say at this time, because it is not constant. At certain periods of the disease it is entirely absent.

Doubtless the other senses are not more exempt from changes than vision. But unless we know that the hearing becomes frequently obscure, it is difficult to discover it, especially when it concerns very young children, and it is commonly the case that we will find it difficult to obtain an exact idea of the perversions that are experienced by the senses of smell and taste.

In regard to the other symptoms that accompany congenital hydrocephalus, we will rehearse them briefly. The physiognomy nearly natural at birth, becomes ulteriorly more and more inexpressive. This is one of the first in-

dications of an alteration of the cerebral functions, when at the same time the head has not very greatly increased in volume. Then, at a time when the child should rely on its limbs and learn to walk, we see that it totters, and cannot support itself. The muscles are atrophied. And in spite of the quantity of food that some patients take with a singular voracity, this feebleness, far from diminishing, increases. Simultaneously, we say again, the head continues to enlarge immeasurably.

There is another phenomenon at the beginning that merits attention. The child, without any good reason, inclines its head forward. A striking contrast with the inverse position which it afterward takes, falling in every sense according to the laws of heavy bodies. Speech, that admirable instrument of connection with the exterior world, is not developed. The child screams out sharply at intervals, which has a very peculiar character, pathognomonic, so to speak, the hydrocephalic cry, the saliva flows continually from the corners of the mouth, a symptom so common with idiots.

All the symptoms are pronounced in proportion to the length of time the disease has existed. The child continues to be slovenly; it remains impotent to support itself, by reason of the paralysis and muscular atrophy, which are more marked. The expression of countenance is completely obtuse, stupid. The face has a strange appearance; it is triangular, extremely small in comparison to the abnormal size of the forehead, and relatively to the total volume of the head. The leanness, the emaciation of the face, give to these unhappy children the appearance of little old men. All these symptoms increase, the wasting of the limbs, the trunk, etc., progressing, the development of the head continues, and becomes more and more enlarged and hideous. Under the influence of the incessant encroachment of the cranium, the skin is stretched and becomes like parchment. The veins are dilated and form net-works from the vertex to the base of the cranium. A few hairs are scattered here and there.

Soon convulsions are displayed; strabismus is more marked; we notice nystagmus, and at the end of a variable time the patient is taken off either by the usual progress of the disease, or by accidental complications.

The progress of congenital hydrocephalus is very irregular, often little pronounced at

its beginning; the hydrocephalus increases in a gradual, and more or less rapid manner, up to the period when death comes to close the morbid scene. Some children, who survive, retain great intellectual feebleness; they go to end their vegetative existence in the department of insane asylums devoted to idiots. Rarely do they overstep a score of years.

Generally simple, hydrocephalus is sometimes complicated. In certain cases we observe spina bifida existing at the same time. It may appear, on the other hand, that spina bifida is the primitive affection, and that, in the course of treatment instituted for its radical cure, we see the development of hydrocephalus. We will dwell next upon that grave complication in speaking upon spina bifida.

At first sight, gentlemen, the diagnosis may appear easy. Often, however, we confound hydrocephalus with cerebral hypertrophy, or again with encephalocele. We have not had this year an example of encephalocele. I will then wait before pointing out to you the differences that exist between these affections. Another difficulty may also be presented: it is the existence simultaneously in the same child of cerebral hypertrophy, and an hydatid cyst. One of the crania which you see here belonged to a child which was affected with these two diseases. It will furnish you with a beautiful occasion to compare the various alterations which characterize these two morbid specimens. Such cases are always exceptional.

All these details, gentlemen, are of great value scientifically, but in a clinical point of view we ought to examine the management of the case, which the physician follows when he is attending a child afflicted with congenital hydrocephalus.

Practically, we ask you if the child can recover, or if there is any chance to ameliorate its condition; consequently it is indispensable that you should understand the means that science possesses to that end, however ineffectual some of them may be.

Professor GÁLIS (of Vienna) extols the following treatment: He directs the head to be shaved, mercurial ointment to be applied daily by friction, and the patient to wear a woollen cap, in order to determine active transudation. Besides, he administers internally two or three centigrammes of calomel, which he continues until the appearance of diarrhoea. He pretends to have obtained favorable results from this method, genuine cures. Other physicians,

M. M. BARNIER, MAUNSEL, MILLS, etc., have recommended mercury, tartar emetic, etc., internally, in the treatment of chronic hydrocephalus.

M. BARNARD (of Bath) in 1836, and later, M. TROUSSEAU, have extolled compression of the head by means of strips of adhesive plaster; they propose to impede, to arrest its development. It is true that compression is opposed to the enlargement of the cranial vault, but we obtain this result only by forcing the fluid toward the base of the cranium, and, consequently, producing new symptoms.

In cases similar to ours, that is to say, when the head has attained an enormous size, this mode of treatment will be useless. And we declare, moreover, it has not one curative advantage. The recovery, strictly speaking, may take place, but the child remains an idiot; and surely that is a termination as much to be deplored as death.

Nevertheless, if the hydrocephalus is just commencing, if the child is well nourished, notwithstanding the separation of the sutures, and the tendency to the enlargement of the head, you may, under some circumstances, usefully interfere by a surgical means in performing repeated capillary punctures.

The place of election for these punctures varies according to the opinion of the surgeon. Some choose the tract of the frontal suture, in the middle of the space comprised between the process of the crista-galli, and the anterior fontanelle; others, and among them Russell, prefer one of the sides of the fontanelle. Some surgeons make the punctures on the plane of the lateral part of the fronto-parietal suture.

In order to complete the description of the manual of operation, we have to indicate 1st, the distance it will be necessary to pass the trochar; 2d, the quantity of fluid to be evacuated.

CONQUEST (1838), who has highly recommended this operation, plunged the instrument into the middle of the dilatation of the coronal suture, and pushed it as far as the ventricular cavity (about five centimetres). The quantity of fluid to be evacuated has been, as well as the seat of the puncture, the subject of discussion. For myself, I think there ought to be evacuated at each setting 50 to 100 grammes of liquid. After the puncture we compress the part with cotton wadding, saturated with collodion. We may also establish, with some advantage, a light and methodical compression with strips of adhesive plaster.



Have minute punctures given good results? Of nineteen patients treated by that method, Conquest lost only nine. BATTERSBY on his side has published some examples of recovery. WEST, in 1842, collected the observations of fifty patients who had been treated by minute punctures. Of these fifty cases we compute sixteen successful ones. But in examining these statistics again we discover that the sixteen cases are reduced in reality to four. And there are some doubts in regard to one more. Besides, another patient cited by West died sometime afterward.

In one of the sixteen favorable cases related by this last author eighteen punctures were made, and in another four livres of fluid were withdrawn.

In summing up, gentlemen, minute punctures constitute a superior palliative measure. They relieve symptoms of compression, dysphagia, œsophagismus, laryngismus, etc. To expect to obtain definite cures is, we believe, an erroneous idea. The curative means are reduced then to naught, and the palliation offers only doubtful chances of success. With our patient, if we have had recourse to punctures, it was only with the intention of calming the nervous symptoms. When you shall work for yourselves, if you believe it necessary to act, remember the counsels I give you, and you will never venture to express a favorable prognosis.

## COMMUNICATIONS.

### MYELITIS SPINALIS.

Being a synoptical notice of the case of Miss HANNAH YOUNG, of Mercer county, Kentucky, who died of that affection on the 29th of December, 1869.

By C. H. SPILMAN, M. D.,

Of Harrodsburg, Ky.

The disease by which the life of this interesting young lady was brought to a close must be exceedingly rare; for the writer of this brief notice, in a practice of near forty years, has never before been called to witness a case of it. Some pathological writers give a partial account of it. Others, however, whose aim seems to have been to cover the entire ground of human maladies, make no mention of it.

In the case above cited there was great obscurity, particularly in the early stage, which rendered a satisfactory diagnosis a thing of

difficult attainment. The local affection was completely masked by a depressing influence propagated upon the heart and arteries, through reflex action of the nervous power, attended by the most intense suffering and loss of voluntary motion, particularly in the extremities. That the disease was spinal, the symptoms left little room for doubt; but whether primary or symptomatic, organic or functional, medullary or membranous, was a problem not so easy to solve.

On the first visit I found my patient upon her back, with a perceptible inclination to the right—her right thigh and leg each slightly flexed, and the left nearly straight. She had power to move her head slightly, but it gave her great pain—no voluntary control over any other part of the body.

The disparity in the paralysis of the upper and lower extremities is note-worthy. The muscles of the former were rigid; those of the latter placid; both alike powerless. Another interesting feature worthy of remark, as shedding light upon the pathology of the case, is the hyperæsthesia of those parts in which voluntary motion was entirely suspended. Tactile sensibility was acute; pain was extreme, particularly on the slightest movement of the body. The least jarring of the bedstead; a heavy tread upon the floor; a loud noise, even the human voice, would occasion a paroxysm of suffering. When interrogated as to the seat of her pain, she would answer, "all over me." The pulse not greatly accelerated, from 80 to 90 beats in the minute, feeble and unresisting. The average temperature of the surface rather below the natural standard; extremities cold, that of the lower limbs more marked, and so deeply was organic life implicated, and so profound the depressing influence upon the circulatory system, that an attempt to turn her upon the side to apply cups along the course of the spine resulted in prolonged syncope, from which it was difficult to arouse her. Subsequent attempts were attended with similar results.

The stomach was so irritable from the onset as to render it an impracticable medium either for nutrition or medication. Incontinence of urine was an early and persistent feature. The power of defecation was greatly impaired.

About the expiration of the third week of her illness, during which time repeated efforts were made to change her position, resulting as often in suspended animation, there were unmistakable evidences of gangrene upon the

parts that had been subjected to pressure; and a marked coincident alleviation of pain.

With the assistance of Dr. HUNT, whose friendly aid and counsel I had previously obtained, she was brought pretty fully under the influence of chloroform, and placed on her left side, after having shielded it with adhesive plaster. A diffuse erysipelas covered the back from the scapulae to the nates; and the back of the sacrum and inferior lumbar vertebra were left bare by an extensive slough. About this time pain left the upper extremities, and voluntary motion was restored. The inferior extremities were still powerless; sensibility, however, intact.

She had maintained this position but a short time when a burning pain and great restlessness indicated that the integrity of the soft parts underneath was threatened. We therefore turned her upon her right side; with great difficulty, however, as the pain, from the commencement, had been more severe in that direction, and she protested she could not lie on her lame side. But it seemed the only alternative. Upon removing the plaster, the outer surface of the os innominatum of that side, from the anterior superior spine of the ilium to the tuber ischii, was exposed by an extensive slough. Even the ligamentous portion of the hip-joint was destroyed.

Hoping to preserve the only remaining sound side, using such appliances as were calculated to harden and toughen the integument, and counteract a tendency to gangrene, with a view to equalize the pressure, and interfere as little as possible with the circulation in the extreme vessels, it was carefully laid in a hollow cushion. The expedient, however, was not successful. In a few days the slough, involving the same parts, was as extensive on this as the other side.

We now procured the valuable aid of Drs. GAITHER and TOMLINSON, who, after a critical examination, concurred in the opinion, that a sustaining treatment, equal pressure, and such topical means as would arrest gangrene and promote granulation, were the leading indications in the case. These indications were met with all the assiduity of which the case was susceptible; but were unavailing, and thus the poor sufferer was doomed to lie literally upon her bones for several successive weeks, mitigated only by such mechanical contrivances as might sustain the weight of the body upon less prominent parts of the surface. The

projecting wing of each ilium, the entire hip-joint, including the great trochanter and upper portion of the shaft of the femur, on either side, the posterior of the sacrum and lower lumbar vertebra—all divested of the soft parts—presented a spectacle truly appalling.

About the expiration of the second month of her illness she became the subject of a diffuse inflammation of the mucous membrane of the mouth. Many blisters, filled with semi-transparent fluid, were visible over the entire surface, leaving innumerable superficial ulcers, rapidly coalescent, until the mucous surface was completely destroyed and the subjacent tissue left bare.

About this time a free hemorrhage occurred, which seemed to flow from no particular part, as from a ruptured vessel, but presented more the character of a secretion from a morbid state of the extreme vessels; for the blood was seen oozing from every part. Simultaneously with this occurrence, the inferior extremities became œdematous, and were extremely sensitive. There was, therefore, throughout the entire course of the disease, and running parallel with the spinal lesion, which was clearly evinced by the paralysis, an unbroken chain of morbid phenomena, strikingly simulating scorbutus, which rendered the case complicated and exceedingly embarrassing. I would, however, note this difference: the redness of the mouth was brighter, the gums less spongy, and the common surface less sallow than usually characterize uncomplicated scurvy.

#### Etiology.

This attack followed immediately upon a ride from Harrodsburg to her home—a distance of six miles—on a cold September night out of a warm crowded room, without proper protection, by which she became exceedingly chilled, and from the depressing influence of which her system never fully reacted.

Deductions from experimental observations of the laws which govern the vital economy, through reflex action of the nervous power, may perhaps contribute to a solution of the problem of causation in the present instance.

It is a well known physiological law, that impressions made through sympathetic sensibility, of whatever kind, whether stimulant, depressant, or simply alterant, correspond with the specific virtues of the agent, and that the nervous power, with the attributes and modifications thus acquired, is reflected abroad, and often exerts in a remote part.

through reflex action, such influences as would result from the direct application of the agent to that part.

The powerfully depressing influence of cold as a vital agent—the intimate sympathetic relations subsisting between the common integument and the various functions of organic life, taken in connection with the low grade of vitality which characterized the disease in question, are circumstances highly presumptive of the alleged cause; and it would seem needless, in the absence of any other appreciable agency, remote or immediate, to indulge in any further speculations relative to it. From the time of exposure the depression [was so profound as to transcend all inherent resisting force; nor were we able, by any available means, to elicit recuperative power.

#### Pathology.

The elements of the pathology of this complicated case are multitudinous, and a minute analysis perhaps unattainable, particularly in the absence of an autopsy, which was denied us. To us it seemed clear that there was inflammation and softening of the spinal cord near its terminus, involving that portion especially which gives origin to those nerves supplying the pelvic region, together with the inferior extremities. The remarkable coincidence of entire loss of voluntary motion, while sensation remained intact, affords a striking exemplification of the difference in the functions of the two orders of nerves, as also their separate and independent action.

If the theory which rests upon the discoveries of Sir CHAS. BELL, and subsequently enlarged upon and reduced to a more perfect system through the labors of MULLER, HALL, PAYNE, and others, referring the origin of the two classes of nerves to the anterior and posterior columns of the cord, respectively, be founded in truth, we are furnished with abundant data, not only for a philosophical solution of the different states of the sensitive and motory functions, but the location of the principal lesion in the anterior columns where the motory nerves originated.

How far the more recent experiments of Dr. BROWN-SEQUARD, in regard to the origin and course of the two orders of nerves, may be presumed to conflict with the above theory, we will leave for the curious to determine. We do not believe that a fair analysis of his experiments furnishes any facts which stand opposed to the well settled theory in regard

to the origin and medium of sensory and motor influences. That the two orders of nerves perform separate and distinct functions, and that the action of each is independent of the other, the phenomena in this case clearly attest; and on the assumed theory of anterior origin for the motory and posterior for the sensitive fibers, the conclusion seems inevitable that the anterior columns were most deeply implicated in the lesion.

No more embarrassing problem presented itself in this case, than the unaccountably depressed state of the organic functions. The form which but yesterday presented the most perfect picture of health and youthful vigor, is to-day prostrate and helpless. The vital movements are labored and halting. The life power seems poised on dubious contingencies, as is clearly evinced by the frequent supervention of syncope on the slightest movement of the body.

The only philosophical solution of which this phenomenon is susceptible, is its reference to consent of parts. Although it is a well ascertained fact that the nervous power is concerned in all organic actions, even to the minutest details of structure, yet the cerebro-spinal nerves, leading to a given part, may either be destroyed, or their functions suspended, and still organic action in the part maintained. This arises from the distinction observable between the nervous power and the organic forces,—the former sustaining to the latter, only the relation of a vital stimulus. Nevertheless, the latter may be profoundly influenced by the deprivation of the former; and the withdrawal of this excitomotory influence, which it is the office of the nerves to impart, whether in health or disease, may give rise to a consecutive series of sympathetic results, of a depressing character, and ultimately involve the entire organic system.

This disease, which at first in many of its external manifestations, as also in the cause which produced it, bore a striking resemblance to rheumatism, was doubtless localized by a preëxisting morbid susceptibility; and the instantaneousness with which the organic forces were overwhelmed, determined by the vital connections of the part most deeply implicated. It affords an instructive specimen of the general, as well as partial results of the excitomotory influence; the latter direct, the former reflex.

**TREATMENT.**—We do not know that anything of practical value could be extracted from a detail of our treatment of this case. We were absolutely debarred from a fulfilment of the most important indications, by her extreme prostration and the keen agony she suffered. A few subordinate means only were practicable. We did not misconceive the site of the lesion.

Nor did we doubt its inflammatory character, however wanting in the ordinary characteristics, by the profoundness of the stroke which overwhelmed the reactive force. Topical blood-letting and counter-irritation along the course of the spine, and particularly over the lumbar and sacral regions, were naturally suggested as the leading indications; but numberless fruitless attempts were made to reach those parts. Venesection was attempted, but badly borne—probably beneficial, but could not be pushed to the requisite extent. Cups were freely applied, as near the seat of the disease, on either side, as could be gained, followed by a succession of blisters. Gentle friction, with stimulating embrocations over the surface, and artificial warmth with hot flannels, and bottles of hot water, were perseveringly employed; alteratives and aperients were repeatedly tried, but opposed by insuperable obstacles; first, the stomach intolerant of medicine, food and water; secondly, the bowels, the regular action of which, we regarded as an indication second only to local depletion, obstinately constipated, having apparently lost their susceptibility to the action of stimuli; and lastly, the utter impossibility of subjecting her to sufficient bodily movement, either for the administration of enemata, keeping her dry and clean, or the use of the most conveniently constructed night glass.

The epigastric region was cupped and freely blistered without perceptible mitigation of the gastric irritation, which persisted to the last.

As sustaining means, the carb. ammonia, cit. fer. and quinia, sulph. quinia, and alcoholic stimulants in various forms were used, and all rejected by the stomach. For arresting gangrene, bromine and carbolic acid of varied strength were employed. The latter we found to be much more efficacious as an antiseptic. Lint saturated with 1 to 20 parts of water, never failed to arrest the gangrene. For promoting the separation and removal of the eschar, the yeast poultice was employed. For subsequent dressings the carbolic acid, 1

to 40 parts of water, was applied to the surface for promoting granulation, and dry lint, over which a plaster of basilicon ointment, modified by prickly pear, was laid, which completed the dressing. This was repeated daily.

For obtaining access to the side on which our patient was lying, we had a cot constructed, from the canvas of which a slip was taken, of sufficient dimensions to expose the diseased parts for applying the necessary dressings. On this cot, with two folded comforts and a hollow cushion intervening, she rested during the intervals. The embarrassing exigencies of the case often suggested a regret that we had not at command Dr. ARNOTT's water bed or floating mattress.

The difficulties that encompassed us, from the impossibility of lifting her and changing her position, without painful encroachments upon diseased parts, are more easily imagined than described; and the revoltingness of the scene and the excruciating torture she suffered, beggar description. It ultimately became an object of anxious concern to find in the community men and women of sufficiently stout heart and strong nerves to brook the scene and render the necessary aid.

It is amazing, that with so little apparent organic life from the outset, under such exhausting wastes and meagre supplies, she should have survived for over a period of three months from the attack.

Her complete immobility from the first—the depressed state of the vital forces, and the impossibility of moving her without the most unbearable suffering, were to us phenomena so unprecedented, we should hesitate to record them, were not the alarming results of our numberless efforts to change her position attested by a cloud of witnesses.

#### HYPERTROPHY OF THE LIVER.

By DR. G. H. HOLLAND,  
Of Frankfort, O.

Charles Hobert, æt. six years, received a fall from a chair, striking the left side against the chair-post, from which he apparently soon recovered. Seven months after the attention of the parents was attracted to an enlargement of the abdomen. No pain was complained of, and no departure from his usual good health observable. The tumor was soon found to be rapidly increasing, with general emaciating; appetite good, rather craving. Nothing com-



plained of as yet, but at times difficulty in respiration after eating. Various physicians were consulted, Prof. SMITH, of Columbus, with the rest. They all concurred, as far as I could learn, in pronouncing it enlargement of the spleen. The case was treated mainly with the iodide and bromide of potassium. The patient gradually grew worse, and on the night of the 5th of September, 1870, died very suddenly of dyspnoea. Eight hours after death, in company with Drs. CUTLER, MERRIMAN, and McGLADE, autopsy was performed. The following is in substance the notes taken at the time of the examination.

Subject eight years old; rigor mortis not well established; general emaciation. Twenty-seven inches midway between umbilicus and ensiform cartilage; two inches less at umbilicus. Pulmonary organs first examined. Very extensive pleuritic adhesion on both sides; heart very much hypertrophied, with all the cavities full of coagulated blood; two ounces of fluid in the pericardium; heart occupying a space between fifth and sixth ribs; both lungs very much congested; parenchyma normal. Extending the incision, the first thing encountered after passing through the peritoneum was the liver, apparently occupying a central position in the abdomen, and crowded up under the sternum. It was removed from the body and found to weigh six pounds strong. Was adherent to the diaphragm for two thirds its length. Texture very soft and easily broken down by the fingers. The greatest enlargement was of the right lobe. Spleen was next examined. Found to be enormously enlarged; weight, one pound nine ounces; tallowish and mottled appearance; texture soft and easily broken down; both right and left kidneys were hypertrophied and the texture very much degenerated; mesenteries were congested and the vessels very much enlarged.

What we think particularly worthy of notice in this case is the enormous size of the liver and spleen. We think all the derangement of the other organs was caused by the mechanical interference of the liver and spleen; principally the liver. It is probably not amiss to state that the patient never suffered pain save from dyspnoea and hunger, which was at all times craving.

— Some one in *Les Mondes* reports the cure of two cases of somnambulism by full doses of bromide of potassium.

## HOSPITAL REPORTS.

### UNIVERSITY OF PENNSYLVANIA.

Clinic of D. HAYES AGNEW, M. D., Professor of Clinic and Operative Surgery.

(REPORTED BY DE FOREST WILLARD, M. D.)

#### Epithelial Disease of Eye—Extirpation.

GENTLEMEN:—The patient now before you, at 55, is one upon whom I have twice operated for a disease of the eye, which gives unmistakable evidence of being epithelioma, and yet which, though so often recurring, I still believe to be of local signification, the general system not being yet contaminated, and a further operation still gives hope of relief. In the first instance, some years since, I removed a growth the size of a pea, shaving it from the sclerotic, and trusted that it would not return. But it was not many months before it made its appearance in the same situation, and was again removed, and this time to as deep an extent as possible without risk of staphyloma; but, as you now see, the disease was deeper situated, and has again appeared, this time in a worse form.

As you will perceive, the mass bleeds freely and has projected from the palpebral fissure, causing the lids to adhere by hardening and incrustation of the surface, and presents a dark, unhealthy appearance. The patient still retains the power of perception of light in her eye, but by reason of the strong tendency which this disease has manifested to return, as also from its rapid growth and the presence of pain, I am decidedly of opinion that the entire ball should be immediately extirpated, thus ridding her of all source of offence, before more serious injury and constitutional symptoms result; for although primarily, as I have said, a local disease, yet the system does undoubtedly become secondarily affected in time, especially in cases like the present one, where the disease is so persistent in its nature. These epithelial cancers, or cancrroids as they are sometimes called, are thus met with in the eye as well as in other parts of the body, and as there are best treated by removal, lest degeneration, or implication of the system follow. The most frequent form of cancer in the eye, however, is of a melanotic type, which is malignant in its character even from the first, and requires early removal, if at all, or the operation will be of no relief.

In cases like the one before us we can be certain of adding to the life of our patients, but should guard ourselves from censure by informing them that there may be a return at some future day.

In removing this organ, I shall simply take away the ball itself, since there is no involvement of the surrounding structures, leaving behind all the muscles, fat, and connective tissue, in order that there may remain as good a stump as possible for the adaptation of an artificial eye; and especially do

I leave the muscles, since by their action they will be able to move this stump in such a manner that the new eye will work in unison with its fellow of the opposite side, thus dispensing with the so noticeable feature which occurs whenever this correspondence of action does not take place.

The outer canthus will be divided to give access to the growth and eye, and I shall commence by cutting through the conjunctiva throughout its entire circumference, and then hooking up each muscle, I shall divide them one by one, behind their insertion into the sclerotic; and lastly, cut off the optic nerve by a pair of scissors curved upon the flat. In this way but little blood will be lost, and we shall secure an excellent stump.

When the surrounding structures are implicated, it often becomes necessary to remove them all, scraping out the orbit, even down to the periosteum, in order to take away every vestige of the disease if possible.

[The patient being etherized, the extirpation was performed as described. The orbit was then packed with lint, wet in carbolic oil, which soon caused cessation of all hemorrhage, when the lids were closed with a compress and bandage. This will be removed in twenty-four or thirty-six hours, and fresh, dry lint substituted, unless undue inflammatory action should occur, in which case cold applications will be constantly applied.—DE F. W.]

#### Fistula in Ano.

This little child, 3 years of age, comes to us with a complaint which is sufficiently rare in children to make the case of interest. It is a case of anal fistule. I have seen it in a new-born babe, as a congenital malformation, owing, evidently, to deficiency of embryotic organization, but these cases are rare, and it is a complaint commonly met with in adult life.

A fistula in ano is, as you know, the result of an abscess developed about the rectum, which has discharged itself by one or more orifices, either into the bowel or upon the integument, or by both routes, which rupture has been followed by a non-union of the walls of the track, owing to the constant action of the levator and sphincter ani muscle, and a sinus with indurated walls has been the result. When this opens into the bowel without perforating the skin, the track is called a "blind, or partial internal fistula;" when merely upon the skin, an "incomplete external fistula," etc., and thus we have a variety of pouches formed by these sinuses.

In regard to the cause of this affection at so early an age, I think that it may be developed by long and continued attacks of diarrhoea, or especially dysentery, provoking irritation of the surrounding structures sufficient to occasion an abscess, or, again, by exactly the opposite extreme, that of long constipation and the impaction of feces in the rectum, setting up the same irritation as in the former case. In adults it is often the result of violence done to

the part. These sinuses at first may be but partial fistules; but in process of time they usually become complete, and feces often make their escape mixed with the pus which is secreted from their sides.

The external orifice, or orifices, for there are often many, usually have the appearance which you here see, that is, a projection or teat, which is red, indurated, tender to the touch, and with a small opening in the center, of variable size; and these, when many in number, give a riddled appearance to the perineum. The length, course, and diameter of these fistules, vary in different cases, and we find them opening at all points from the verge of the anus to a point two or three inches up the rectum. In either case they are unpleasant to the patient, rendering his life miserable from the constant odor consequent upon the discharge and the consequent unavoidable uncleanness, and even when there is no opening into the bowel, the oozing of purulent, or muco-purulent matter will be an evil which will call for operative relief.

I place this little child upon its face, and insert a probe into the orifice of the sinus, which you see about an inch from the anus; it passes upward and inward, and now with the finger of my left hand I feel it enter the rectum, just below the internal sphincter;—I bend it downward, and easily bring it out the anus.

In these cases it is useless to attempt a cure by stimulating injections, cauterization, etc., for the constant contraction of the levator and sphincter ani muscles will render all such attempts futile. It is far better at once to lay open the abnormal canal throughout the whole of its extent, thus ridding ourselves of the action of these muscles, and compell the wound to heal from the bottom, by an inserted tent.

We may sometimes have great difficulty in finding the internal opening of the fistule, owing to the sinuosities of the canal; but by patience and perseverance, sometimes, perhaps, even using the speculum, I think we can usually succeed, especially if we remember that the orifice is likely to be low down in the bowel, and not at a distance from the anus. That an internal orifice exists in a large majority of cases I believe, although I am certain that we meet with cases in which there is none. Should no such opening, however, exist, we can easily complete the fistule by boring the director through or by passing a small, sharp-pointed bistoury along the track into the bowel, guarding it by an inserted finger; after which we have but to carry a grooved director through the course thus made, bring it out the anus as the finger is withdrawn, and then carry a knife along the groove, dividing the superimposed structures, and giving us an open, granulating surface.

When the fistule is very short, a narrow probe-

pointed bistoury may be carried through it, and then drawn directly downward by hooking over its end the finger of the left hand, thus severing the bridge of tissue in its course, and cutting the levator ani longitudinally and the sphincter transversely. In either case a tent well oiled and allowed to remain will enable nature to complete a cure without any further paring or scraping of the sinus.

When the opening into the rectum is at a distance above the anus of three inches, and when the knife would be likely to occasion severe hemorrhage from the section of the hemorrhoidal arteries and veins, we may use the ligature. It is slow in its action, but possesses the advantage of allowing the patient to move about during the treatment. The thread should be of strong silk, and may be carried through by means of an eyed probe, in the same manner as we introduced the grooved director; or when this cannot be accomplished by reason of the distance of the aperture from the verge of the anus, a double ligature may be carried into the bowel upon the nail of the forefinger as far as the internal orifice of the track, while along the fistule is then passed a bulbous probe, over which the loop may be caught, and by a process of twisting be withdrawn attached to the probe. Then we need but to draw one thread entirely through, leaving the other behind, and we have a single ligature which can be tightened by tying or twisting, and in this way a constant pressure can be made which will in a short time cause the string to ulcerate its way to the surface, while the tissues will unite in its rear by granulation. This is a slow process, and when the orifice is within two or three inches of the anus, I prefer the use of the knife. There is but little danger of any hemorrhage which will not be perfectly controllable by pressure.

[The little child was then etherized, a grooved director passed through the sinus, brought out of the anus, and the structures divided with a bistoury. Hemorrhage ceased with the insertion of an oiled tent, which was held in position by a compress and T bandage. Opiates will be given to control the action of the bowels for a few days, after which

they will be opened by a purgative or enema.—*Dr. F. W.*]

The next case is one which is interesting as regards diagnosis, as it might give you some little doubt as to its origin. The patient is a laboring man, 45 years of age, who states that he received an injury of the hand by a penknife some four months since, which soon healed, but caused him considerable pain, and was accompanied with enlargement of the axillary glands, and though they did not suppurate, yet gave him severe pain for a long time, and he says that the pain extended forward upon the anterior aspect of the thorax.

Upon examination, you will perceive a large tumor presenting itself below the clavicle about its middle third, and another smaller one above the bone, in the neck; and as I press upon one of these you will see that the other increases in size, showing that they are connected in some manner, which connection must be beneath the clavicle. To the hand they are soft, elastic and fluctuating, not lobulated like fatty growths, nor hard like malignant tumors; neither does its history indicate any such character. I pass the exploring needle and find pus, yet it is deep beneath the surface. It cannot be an aneurism, for it is not in the position of an artery; neither has it a thrill.

This is then an abscess; and as we mark its situation we see that it is directly over the division of the sternal from the clavicular portion of the pectoralis major muscle, and I find that I can almost pass one finger down between these portions. This, then, has evidently been a *post-pectoral abscess*; the pus has made its escape in this direction, and appearing here in front, and is now burrowing in different directions.

The man is pale and feeble, and must be relieved of further drain; at the same time attending to his general health.

[Eight ounces of offensive pus were then drawn off by an incision, and a compress and bandage applied in order to cause apposition and union of the walls of the abscess, while a tent or drainage tube will be inserted into the opening.—*Dr. F. W.*]

## EDITORIAL DEPARTMENT.

### PERISCOPE.

#### Infantile Aural Catarrh.

Dr. A. H. VOORHIES, Professor of Aural and Ophthalmic Surgery, of Memphis, Tenn., says on this subject in the *Nashville Medical Journal*:

Not only anatomical facts, but daily experience, prove to us the great frequency of diseases of the ear in children.

Ear-aches are of such common occurrence with children that you scarcely know a child that has not suffered at one time or another in this way. If the proper examination is made, it will be seen that it generally depends upon inflammation of the middle ear, and not upon a neuralgic nature.

Otorrhœa is known to be one of the most frequent affections that we are called to treat in children between the ages of six and twelve, and I am sure that

more than half are dependent on a previous inflammation of the middle ear.

Since experience teaches us that inflammatory diseases are so very frequent with children old enough to point out the seat of pain, it is reasonable to believe that the same disease as often attacks those of a more tender age; but that we are not so able to detect it, simply on account of the difficulty of recognizing the true state of things in the absence of a purulent discharge. The anatomy of the parts, combined with the well-known history of their development, prove how favorable circumstances are to the disturbance of the function of the mucous lining of the middle ear. You will more certainly agree with me when I call to your recollection the intimate relationship between the dura mater and the mucous membrane of the middle ear, as the former extends along the "fissura petrosa—squamosa." Nearly all the fixed points are wanting, such as we have in adults, by which we are enabled to diagnose inflammation of the ear. We are obliged to rely upon a few prominent symptoms—to diagnose by exclusion, and look well to the result of our therapeutics. When the collection of pus is large, we can hardly fail to recognize the state of things; and the affection will soon declare itself by the peculiar cry of severe pain, as ascribed to this condition by some practitioners. The character of the cry, the great disquiet, and the disposition on the part of the child to bury its head in the pillow, will lead the physician at once to suspect otitis interna. The pain may last for days, without any intermission of consequence.

The crying will distinguish it from diseases of the lungs or trachea, but this cannot be relied on in inflammation of the brain or bowels; yet the absence of the more prominent symptoms of these affections will at once settle the question.

There is one important point that I would especially refer to—that is, the increase or decrease of pain in the movements of the child; for it will always cry in the peculiar way spoken of, when it is moved in the slightest. Accompanying this, you may almost always look for nasal catarrh, which, in most instances, will be quite prominent. It is rather difficult to come to a definite conclusion as to the degree of deafness; still we can always tell whether the child, even of a very tender age, can hear loud sounds or not. That many of the attacks of convulsions, with stupefaction, are dependent, solely and entirely, on an otitis media, I have not the slightest doubt.

Now, what shall be our treatment when an otitis media is correctly diagnosed?

If the case is seen early, say within the first twenty-four hours, and the little sufferer is considered healthy, I would order one leech to be applied to the front of the ear, while an evaporating lotion of

some kind is placed around it, to relieve pain and hyperemia. Have the meatus filled with warm water every ten or fifteen minutes; but never employ poultices, for all the good that such can do your patient can be obtained by the use of warm water, as mentioned, while much harm may follow the use of the poultice, in the way of establishing an obstinate otorrhœa. The frequent injections of lukewarm water through the nose will do much in the way of removing mucus from the pharyngeal space. Politzer's method is my chief reliance, for by this means the tube can be opened, and an escape of the pus effected. It must be remembered that the Eustachian tube is not only relatively, but absolutely, wider than in adults.

This method of inflating the tympanum is far preferable to all others, since it can be employed at all ages, and in the face of the most determined resistance on the part of the child.

#### Compressed and Rarefied Air in Therapeutics.

We have several times referred to this subject. The following notes on it we extract from the *Bowdoin Scientific Review*, prepared for that journal by NORMAN CALL, A. B.

The first prize in Medicine and Surgery for 1870 was awarded by the French Academy to M. Junod, inventor of various *ventouses* (apparatus for the employment of air) so often mentioned in connection with his name. The title of the work presented by M. Junod, in competition, is entitled: "Concerning Hemospasic and Ærotherapeutic Medications, or Compression and Rarefaction of Air, both over the whole surface of the body and over particular limbs."

In the introduction to his work Dr. J. explicitly defines the expression, "hemospasic and ærotherapeutic medication" as here employed, to signify merely baths of compressed air.

He claims originality in this method in which M. Tarabé made the first formal application to therapeutics, and which during the past twenty years has been the subject of several works, the most important of which are those of Dr. Prevez, an old student of the famous Polytechnic School of Paris, and M. Bertin, of Montpellier.

As early as 1835 the learned M. Serres, in a report to the academy, directed attention to the powerful effects attained by the large *ventouses* of Dr. Junod, the immediate cause of which is the diminution of atmospheric pressure in the regions where the *ventouses* are applied, effects which may be utilized in certain diseases.

He then adds: "M. Junod also employs his large *ventouses* to compress the air about a limb, and then by an inverse effect the blood is forced toward the part subjected to compression. An action and reaction may then be determined, from which use-



ful results in the treatment of certain diseases may be hoped for."

The effect of the increase or diminution of atmospheric pressure on the whole body had, at that time, received no attention, but Dr. Junod lost no time in applying himself to this question, and subsequently addressed a memoir to the academy and submitted it to a committee. This memoir has not, as yet, received any acknowledgment, therefore Dr. Junod brings it before the convention of this year.

In 1783, nearly a century ago, the Harlem Society of Science proposed the following prize subject: 1. To describe the most fitting apparatus for making experiments on condensed air in the most convenient and accurate manner. 2. To determine with this apparatus the action of condensed air in different cases, and among them to study animal life, the growth of plants and the inflammability of different kinds of air.

Such a subject as this well characterized the age in which it appeared. It was, indeed, so to speak, the order of the day, in 1783, in those memorable times when pneumatic chemistry marched from conquest to conquest; in those times when Lavoisier, though young, but born to immortality, had just robbed nature of this secret of respiratory combustion, so long concealed, and like another Prometheus had discovered the veritable fire of life, since to extinguish it is to extinguish life also.

The prize subject so happily selected by the Harlem Society of Sciences received little attention, however, and no solution of the questions proposed was offered.

In 1834 Dr. Junod presented a memoir to the academy, in which he made known the effects of condensed air on man in a state of health, and this, according to Dr. Pravez, himself, was the initiative of the researches on the action of compressed air on the human body.

"When," said he, "the natural pressure is increased one-half, these phenomena are observed: The membrane of the tympanum, forced backward toward the internal ear, becomes the seat of a disagreeable pressure, which disappears gradually as the equilibrium is reestablished, probably by the introduction of condensed air into the middle ear through the Eustachian tube; respiration is continued with renewed facility, the capacity of the lungs for air seems to be increased, the respirations are heavy and more frequent than ordinarily, and at the end of fifteen minutes an agreeable heat is felt in the chest.

"The circulation of the blood appears to be modified; the pulse is full, and is with difficulty depressed; the calibre of the superficial vessels is diminished and may completely disappear, so that the blood, in returning toward the heart, follows the course of the deep veins. The intellectual function

are excited, the imagination is lively, the thoughts are occupied with some particular charm, and in some cases a sort of delirium, intoxication, is experienced; the muscular system shares this increase of activity, the movements are easy, energetic and apparently more steady. The digestive and all the secretory functions, especially those of the saliva and the urine, are performed with facility.

"It is said that the weight of the body is sensibly diminished, at least such is the sensation experienced by a person when confined in the condensation apparatus."

In the same memoir in which M. Junod thus set forth the influence of condensed air on the living man, he also discussed: "The effects of the increase and diminution of atmospheric pressure on the human body."

The report made to the institute in 1835, on the memoir of M. Junod, terminates thus: "Your commissioners, who have witnessed the experiments of this author, have throughout observed with interest the modifications the voice undergoes under the influence of the greatest or least density of the air, as the pump for rarefying the air is worked, the voice loses its intensity; in case of compression, on the contrary, it assumes a very distinct tone quite as extraordinary."

#### Physicians and Apothecaries.

Dr. J. H. H. BURGE says on this subject, in a lecture printed in the *New York Medical Journal*: In the solution of this question—"Doctor, does it make any difference where I get this?"—is involved the whole subject before us. We hold that it makes so much difference, that we are in duty bound to demand that the proprietor of every pharmacy, and every clerk who is, under any circumstances, allowed to dispense medicines, shall be practical druggists and graduate of some legal and reliable college of pharmacy. It seems to us but reasonable that the law should absolutely restrict the compounding of prescriptions to such persons. Such a law, properly enforced, would immediately divide our apothecaries into two classes, viz., pharmacutists and medicine-vendors—and this leads me naturally to the subject of the next and most desirable reform. Medicine-vendors will, of course, make and sell secret nostrums *ad nauseam*; but is it too much to ask that the scientific pharmacist—the physician's help-meet and co-laborer—should ignore a traffic so ignoble? Why should our prescriptions be dispensed by the very men who engage in the encouragement of the vilest quackery? It is an incongruity which ought not to be longer tolerated.

Let us pledge ourselves to the encouragement and support of those who will banish all nostrums and quack advertisements from their stores. The field of enterprise will be wide enough then. There

is no objection to the sale of fancy goods, soda-water, and pure medicines. These, together with an increased prescription business, will doubtless prove encouragement enough to twenty first-class stores in different parts of the city. The more sudden the transition the better. This is no visionary idea. We have the promise of such pharmacies, and, if you desire it, they must succeed.

Another evil which we ask to have abated, is the practice of prescribing over the counter. So universal has this become, that the common people call drug-stores "doctor's shops." Just as an ignorant man supposes that a doctor knows all about the art of pharmacy, of which, by-the-way, he is often shamefully ignorant, so he supposes the apothecary to know all about disease; and this popular impression and misconception often spreads to these functionaries, and leads them to imagine themselves to be what they are not.

By taking advantage of the popular error, viz., that because he deals in medicines he must know all about their uses, he performs a service for which he has not been fitted by education or practice; he impliedly makes pretension to knowledge which he does not possess, and he takes from the physician part of that business which he has spent the best years of his life in preparing himself for.

Again, we have a right to demand that, in each case, the terms of the prescription shall be rigidly adhered to.

A teacher in the College of Pharmacy is quoted as having said that, if any particular manufacturer's preparation were written for, the apothecary was justified in substituting his own or any other as good, unless it were an article of unusual importance; that if he did not his neighbor would, and he would be pronounced a poor druggist, while the neighbor would get the credit of being all right. I only refer to this to say that it is pernicious teaching, because the physician alone must judge of the "importance" of the article in any given case.

#### Loss of Superior Maxillary Bones.

Dr. J. A. PERKINS, of Amesbury, Massachusetts, gives the following case in the *Dental Cosmos*:

Mr. A. E. Brown, some five years since, while working in a saw-mill, in New Brunswick, met with a very serious accident, which resulted in the entire loss of the superior maxillary bones, with their attachments, the nasal processes, and palate bones, the stick striking him near the centre of the nose. His injuries at the time were of such a nature, and his prostration so great, that no hope of recovery could be entertained by his friends. But, possessing a remarkably hardy constitution, and fortunate in the attendance of a skilful surgeon, together with good nursing, he slowly recovered.

But months, and even years, elapsed before he was able to engage in his usual occupation.

In the mean time the roof of the mouth became covered over in part with a soft structure, adhering to the side and front, but still leaving open a large space, which proved to be a great annoyance. To obviate this difficulty, he was advised to undergo an operation at the Massachusetts General Hospital, which he accordingly did last fall,—an incision being made on the side and back of the opening, bringing the parts together. Thus, in this condition, they remained until the fifth day, when a small opening, nearly in the centre, made its appearance, large enough to insert the end of the thumb. The edges of this unfortunate rent soon healed, and became quite firm and capable of resisting considerable pressure.

With this brief description the condition of the mouth may, perhaps, be imagined, when we took the first impression, some two or three months after the operation, for a temporary upper jaw and teeth, together with a temporary lower set of teeth, the few remaining teeth and stumps in the lower jaw having been but very recently removed.

The impression cup was made of tin, formed so as to adapt itself as nearly as it was possible to the peculiar shape of the upper part of the mouth; and the material used was wax, thinking plaster might flow into the soft and tender parts and be more difficult to remove. The teeth were retained in position, in part, by strong gold spiral springs attached to the upper and lower plates.

Some idea of the amount of rubber employed in the construction of the upper dentures may be conceived, when we state that from the end of the teeth to the rubber it measured nearly an inch and a half.

We have not time to go minutely into particulars but will remark that the whole arrangement was a success, not only enabling the man to masticate his food, but also to articulate his words quite distinctly; and perhaps more than all this, rendering a face that was almost repulsive to look upon one of manly beauty and symmetry.

#### Application of Thin Sheet-Lead instead of Lint in Wounds.

Dr. BURGGRÈVE states in the *Comptes Rendus* that lead feels soft and cool to wounded parts; its use entirely supersedes that of lint. The formation of a very thin layer of sulphuret impedes putrefaction and the development of small organisms. When once the wound has been dressed with lead, it may be washed as often as desired with water, without the necessity of removal of the dressing. Lastly, the use of lead renders summary operations frequently unnecessary.

**Purification of Dirty Water.**

Since, in dry seasons, any water may be of high value, at least for cattle-drinking, a writer advises to place, in a large-sized cask, a false bottom perforated with some holes; and to put on that bottom, first, clean pebbles, next, well washed sand, then a layer of coarsely granulated charcoal, and over all a piece of canvas. The water, even that accidentally standing in shallow ditches after a shower of rain, may be poured into this filter, and thus become available for cattle drinking, though it may not be quite clear.

**Reviews and Book Notices.****NOTES ON BOOKS.**

In a pamphlet of 32 pages Dr. J. H. THOMPSON, of Washington, D. C., explains his operation for the radical cure of lacerated or ruptured perineum. It is a modification of the method adopted by Baker Brown, of London; the principal difference being that Dr. Thompson never divides the sphincter ani, which act Mr. Brown considers essential to success. The report is illustrated by 27 cases.

We have on several occasions taken the liberty of expressing ourselves candidly against the views put forward by Dr. NATHAN ALLEN, and we observe that that shrewd and unsparing critic, the *New York Nation*, has reached similar conclusions. A late number has the following remarks:

"Dr. Nathan Allen, of Lowell, having got hold of an exceedingly good subject—the physical degeneracy of the native Americans—seems very loth to let it go. But if he will allow us to say so, each time that he brings it up, what he has to say about it seems less satisfactory. We have endeavored in vain to find in his contribution to the October number of the *Journal of Psychological Medicine* a reasonable pretext for publishing it. On the contrary, we have either been wearied with the repetition of general statements unaccompanied by precise statistics, and in fact admitted to be incapable, as yet, of convincing proof; or annoyed by assumptions which a professional man should not have been guilty of."

We add the following announcement:

Gamgee. Fractures of Limbs, their Treatment, etc. Lindsay & Blakiston.

Hamilton (F. H.) Contributions Relating to the Surgery of the War. Vol. II. Hurd & Houghton.

Heath (C.) Practical Anatomy: A manual of Dissection. Illus. H. C. Lea.

Lewis (D.) Talks about People's Stomachs. Fields & Osgood.

Richardson (J. G.) A Hand-Book of Medical Microscopy. Lippincott.

**BOOK NOTICES.**

A Treatise on Physiology and Hygiene for Educational Institutions and General Readers. Fully illustrated. By Joseph C. Hutchinson, M. D., President of the New York Pathological Society, etc. New York: Clark & Maynard. 1870. 1 vol., 8 vo., pp. 270.

We are glad to see medical men, such as Prof. DALTON and Dr. HUTCHINSON, devote a portion of their time to writing works on popular medical education. It requires uncommon tact and literary skill to compose at once an agreeable, a correct, and a teachable book of this kind. The attempts have been numerous and the failures nearly as many.

The one before us has some excellent points. It is much more readable than most others. The style is generally simple and pleasing, varied by illustrative anecdotes and familiar examples; the arrangement of the topics is judicious; and the general statements and the rules of hygiene are strictly in accordance with sound scientific medicine.

Nevertheless, there are a number of minor flaws, which, without hypercriticism, we may mention. There is a frequent lack of strict accuracy, especially unfortunate in an elementary work. For instance, such an expression as this (in the introduction): "There is nothing superfluous in our frames," is a popular, not a scientific expression, for nature often delights in superfluities, as when she gives the male a mammary gland. So (p. 17) to define marrow as "an oily material" is a very loose expression; the description of the heart (p. 109) leaves the reader to suppose that its action alone causes the circulation of the blood. The questions at the bottom of the pages are occasionally inaptly put; what, for example, is the use of a question to such an empty rhetorical flourish as this (p. 236): "The will of an infinite Creator is obeyed by atoms as well as by worlds?"

The text is divided into chapters and sections, and type and paper are excellent.

**Proceedings of the Second Anniversary of the Nebraska State Medical Society, held in Omaha, Nebraska, June, 1870. Omaha, Nebraska, 1870. 1 vol. small 8vo. paper, pp. 47.**

This pamphlet contains the minutes of the meeting, the constitution and by-laws of the Society, and some medical and surgical reports. It indicates that the spirit of organization is well received in our more remote districts, and is a pledge for the future of the profession in Nebraska.

A number of interesting cases were reported to the section on surgery, one or two of which we shall quote elsewhere, as deserving a wider circulation than they will receive in the State report itself.

## MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, OCTOBER 29, 1870.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

Medical Society and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

To insure publication, articles must be practical, brief as possible to do justice to the subject, and carefully prepared, so as to require little revision.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

## THE EXACTNESS OF MEDICAL SCIENCE.

A favorite subject for essays and addresses now-a-days is the tendency of modern medicine. Reformers flatter themselves that the exhibition of medicaments *per se*, that is, of drugs, is either about to be put away altogether as among the obsolete furniture of a past age, or else that hereafter they will only be administered in accordance with strictly scientific rules deduced from their physiological action.

We frankly confess to being sceptical about either of these sanguine views. It is our confident belief that to discard drugs, either wholly as the orthopraxists do, or in great measure, retaining only a few anodynes, tonics, and anti-periodics as a great many neopraxists among regular physicians take pride in doing, is deliberately to deprive oneself of a means not second to any at our command to combat disease and postpone death. Most persons who adopt this view have been led to it by a too earnest desire to see in therapeutics an exact science. This it is not and cannot be.

We will explain why:

All exact sciences, except those which are based upon mathematics, are strictly empirical, in the sense that their laws are merely the constant results of repeated experiments. Their *exactness* depends entirely upon the constancy of these results, and this in turn rests upon the number of factors which are embraced in the experiment. Just in proportion as the number of factors increases is the

number of influences increased, which may modify the result, and the law derived from it, therefore, is rendered more uncertain, or, at least, more general and vague.

Now, the factors which enter into all therapeutical experiments are in the highest degree complex and numerous. The one is, we will say, the material itself, usually an organic, or, at least, a compound inorganic substance; the other the human system, than which no more complicated factor, none more subject to idiosyncrasies and individual peculiarities can be found. How impossible, therefore, ever to expect certain results?

How can any certain inference be drawn from the body in health to the body in disease? The physiological effects of drugs are extremely deceptive guides to their therapeutic powers. Is it an unfair manner to put the question to say that we might as well assert that because sausage and cheese agree famously with one in health, that, therefore, we should consider them admirable remedies in disease? At any rate the familiar example of food admonishes us that what strengthens in health may poison in disease.

While we would warn against any extravagant hopes of discovering the rationale of medicine, we do it simply to prevent the reaction which takes place when finally such hopes are disappointed, as they must be. Recently in this journal a writer showed how vain have been all attempts to explain the action of mercury. Yet not one sound practitioner has, for that reason, renounced its employment. It is enough, and it is all we can ask, if in many complaints a guarded and extended experience shows it is beneficial. So it must be with all medicaments, and any one who asks more than this, so far from meriting any eulogia as more scientific in thought, merely shows that he has not well considered on what basis the inductive sciences depend, and how far it is possible for medicine to be reduced to exactness.

## ALLEGED CASE OF MALPRACTICE.

Last week, in the district court of this city, a suit for alleged malpractice was brought against Dr. JOHN J. REESE by a Mr. Haire. Plaintiff stated that in consequence of a fall from a building he suffered severe injuries in the leg and hip. Dr. Reese gave him his attention, and after having removed him to his home attended him several months. On the 24th of February, while Dr. Reese was still in atten-



dance, Dr. AGNEW was called in and he concurred with Dr. Reese in his diagnosis and treatment.

The plaintiff now alleges that because his leg is short and he has not recovered the full use of it, there was mismanagement and want of professional skill. He alleged and produced a physician in support of it, that the thigh bone was fractured, and that Dr. Reese did not treat it as a fracture. For the defense, Drs. Gross, Agnew, Duffee, Packard, and Brinkley testified that the present condition of the limb was no evidence of a fracture, for while a fracture leads to shortening, other causes will produce the same effect, especially a severe concussion. They endorsed Dr. Reese's treatment. Dr. Reese himself was examined as a witness, and testified to the careful manner in treating the case.

Judge Thayer, in the course of his charge, said: "The implied contract of a surgeon or physician is not that he will absolutely effect a cure, but that he possesses and will employ in the treatment of a case such reasonable skill and diligence as are ordinarily exercised in his profession by thoroughly educated surgeons and physicians. In judging of the degree of skill used, regard is to be had to the advanced state of the profession at the time. No physician, by the nature of his employment, contracts to insure recovery. All that a physician agrees to do is, in the first place, that he is competent by education and experience to do what he is called upon to do. He undertakes to employ ordinary skill—not, of course, the highest skill of which the profession has been known to exhibit—but he does undertake to employ ordinary skill. He also undertakes that he will use due diligence and attention in attending upon his patient, and that he will exercise such skill as he possesses to the best of his ability." The jury returned a verdict for defendant.

An examination of the case will convince every one that this is another of those charges of alleged malpractice without any foundation whatever, and which illustrates the ingratitude which is often the reward of the surgeon's most devoted attention.

## Notes and Comments.

### Philadelphia Items.

Dr. HARRISON ALLEN has been elected as Surgeon to the Philadelphia Hospital, in place of Dr. J. LEVIE, resigned. This appointment gives him, in connection with his lectureship on syphilis at the University, the rich venereal wards of this hospital. He has resigned his position as Assistant Surgeon to Will's Ophthalmological Hospital, and Dr. H. ERNEST GOODMAN has been elected to the vacancy thus occasioned.

Dr. WM. GOODELL has been appointed as Clinical Lecturer upon Diseases of Women and Chil-

dren, at the University of Pennsylvania, vice Dr. E. A. SPOONER, resigned. Dr. W. F. JENKS is appointed as his assistant.

### Difference in the Milk of the Two Breasts.

M. SOURDAT has found that, while the quantity of sugar and salts contained in the milk of the two breasts of the same women does not perceptibly vary, the author has found that the milk of the right breast contains more butter and caseine than that of the left breast, the difference being as much as in the ratio of 9 to 1.

### The Vis Vitalis.

The doctrine of a vital force above, and distinct from the physico-chemical forces, seems to be held in greater favor than heretofore. In the *Revue des Cours Scientifiques*, Juin, Dr. POELMAN states, that in addition to being subjected to the ordinary chemico-physical and mechanical forces, the living body of a man is subject to a force which cannot be properly defined, but which supersedes the others, and may be called *intelligence fonctionnelle*.

### How to Water the Streets.

In a recent number of a French chemical journal a writer, M. CH. MÈNE states that, of the two deliquescent salts which have been applied for this purpose—viz., the chlorides of magnesium and calcium—the last named suits best, the quantity being adjusted at 250 grms. per square metre. It appears from this paper that, in 1860 and 1863, the Place Bellacour, at Lyons, was (experimentally, and during great heat,) watered with a mixture of chloride of calcium and commercial hydrochloric acid, properly diluted in water, the effect being highly appreciated by the inhabitants, also on account of the perceptible purification of the air.

### Alleged Criminal Abortion.

Dr. O. W. REID, of this city, was charged last week with performing a criminal operation on a young girl residing with the family of Dr. CHARLES STOKES. The result was detailed by Dr. Stokes, who attended upon the complainant in her sickness. Reid was held to bail in \$3,000 for his appearance at court. Reid is already in prison to answer a charge of a similar nature in which death resulted.

### Poisonous Colors

The result of some recent experiments by Mr. GUYOT, upon the poisonous qualities of certain products of the phenyl group, are summed up in a late communication as follows: That azuline is or is not poisonous, according to its method of prepara-

tion; when it contains an excess of aniline it is poisonous; and when prepared with poisonous coralline it may contain phenol, and in consequence act upon the epidermis. Prepared with rosolic acid, even itself poisonous, azuline may be harmless when it is properly washed. Lydine purified, or free from prussiates and from aniline, does not act upon the skin. This purification of lydine is best accomplished by means of a succession of solutions in alcohol, and a partial precipitation by the aid of soda. Azuline and lydine may be employed in dyeing and the printing of cloths.

## Correspondence.

### DOMESTIC.

#### Synchronous Double Amputation.

EDS. MED. AND SURG. REPORTER:

R. G., et. about 23 years; Welsh; married; carpenter by trade; on November 22d, 1869, 11 A. M., in attempting to get on a loaded coal car while the train was in motion, slipped, and falling with his lower extremities across the rail, the car wheel passed over the left foot at the ankle, and over the right leg above the ankle. I was immediately summoned by his friends to attend to the case. I saw him within half an hour after the accident had occurred. I made an examination of the parts, and found that the arteries and nerves were lacerated, making a compound (complicated) case. I found but very little bleeding going on, the arteries being cut through, which facilitated the vital power of the vessels to contract. I soon gave my opinion to his friends that both limbs would have to be amputated, and expressed a wish to the sufferer that I should have the opinion of another medical gentleman, to which he agreed. I sent for Dr. GEORGE B. H. SWAYZE, who very kindly came. After Dr. Swayze had made his examination we determined to go on with the operation as soon as possible. The patient was not very much exhausted when I first saw him; he felt rather cold; looked pale; pulse weak. Reaction very soon came on; the pulse became fuller; felt warmer; looked more comfortable.

We put him under the influence of chloroform et ether. The left foot was amputated at the ankle joint after the method of Syme. The right leg was amputated about eight inches below the knee by anterior and posterior flap method. Both limbs were dressed with strips of adhesive plaster, also a bandage carefully applied to assist to adjust the parts. We left him comparatively comfortable. I again saw him about 9 P. M. the same day, at which time his pulse was ninety; skin warm; felt comfortable, and had taken a little food. At 12 P. M., the

same evening, I was again called to see him; found him very restless, and he complained of great pain in both legs. I damped the dressings with cold water, and prescribed him a grain of opium every two or three hours. He was greatly relieved soon after the first dose. I left him at 3 A. M., dosing.

I found him next morning as well as could be expected. I prescribed for him one drachm of compound tincture cinchonæ three times a day, with anodyne at night. I did not remove the first dressing for five days, as there was no sign of suppuration. Dr. Swayze met me for the last time at the first dressing. The right leg healed by first-intention. There was considerable sloughing on the left leg, but soon healthy granulations made their appearance. I first dressed it with ung. resinæ, and afterwards with ung. cetacei. I did not use carbolic acid at all. All the parts were quite healed in six weeks, and now I am happy to state that he has for some time been able to walk about on artificial legs.

Dr. IDRIS DAVIES.

Oct. 6, 1870.

Mahanoy City, Pa.

#### Strychnia in Tetanus and Hydrophobia.

EDS. MED. AND SURG. REPORTER:

In your valuable and useful REPORTER of the 1st Oct. inst., a case of tetanus, reported by H. L. W. BURRITT, M. D., of Bridgeport, Conn., fairly represents the inefficiency of the anodyne, anti-spasmodic, stimulant and counter-irritation treatment, as does the case of young Fox, which I reported in No. 688, May 7th, of the same journal, which preceded my experience with strychnia, presented in the same article. I would not have noticed this case for comment, had not the heroic treatment of the first named medicants, so signally failing, been followed by the remark, that "early in the stiffness of the neck one-eighth of a grain of strychnia was given, but the difficulty was so evidently and immediately aggravated, that its repetition was not dared," and that "it did not diffuse, as claimed, but concentrated the spasm more in the throat." In justice to the strychnia treatment, published for the benefit of those suffering from tetanus, a just, well authenticated, and evidenced claim should not be ignored and set aside. About the time the larger number of these cases were published in the *N. Y. Journal of Medicine*, a coroner's inquest was held in this city on a woman, who died from the effects of one-eighth of a grain dose of strychnia. Just the dose which Doctor B. did not dare to repeat, and "which failed to diffuse the spasm as claimed."

In nearly all of these cases, the twentieth of a grain was commenced with, and gradually increased to one-twelfth of a grain, which invariably proved successful. In this way, the abnormal condition of the nervous system came gradually and regularly

under its salutary influence, thus controlling the whole muscular system, and restoring the patient. A very serious mistake occurred in the printing of my manuscript (making the doses one-sixth to one-half grain, instead of one-sixteenth to one-twelfth of a grain—though corrected in No. 691, of the 28th May), which might have led to the use of this large dose, thus terrifying the doctor, and ending his experiment. The same article corrected was republished in the last July *Half-yearly Compendium* correctly, except a mistake of one-sixth for one-sixteenth of a grain, in the case noticed of hydrophobia, which was seemingly so much benefited by its use.

Respectfully yours,

EDW. VANDERPOEL, M. D.

No. 133 Madougal St., New York, Oct. 18.

#### Mothers' Marks.

EDS. MED. & SURG. REPORTER

Ridicule may, in many instances, prove a good weapon to dispel superstitious fancies and absurd ideas of cause and effect; but when a writer (vol. XXIII, No. 15) chooses to render ridiculous the belief that the child in utero may be affected by mental impressions of the mother, he selects the poorest controversial weapon, and arrays himself against some of our ablest psychologists who, as yet, are not prepared to deny the relation.

May not the mind of pregnant women at certain times be in such a state that it is peculiarly impressed by certain objects presented to the sight, of sounds to the ear, etc., that the motion produced may so effect the development of the fetus as to make it the analogue of the external object? For want of a better term, I will denominate such a state of mind as the *peculiar condition*. This view is supported by many recorded cases which I shall, however, not cite, but will add a case of my own, which, to my mind, is quite conclusive.

October 2d, 1870.—I was called to conduct the labor of Mrs. K., æt. 24. It was her third child; the labor was normal in all respects, and I therefore need not state the progress of it. The new-born child was perfect in all parts, except that all the fingers of the left hand were missing—the amputation being at the metacarpo-phalangeal articulations. On a subsequent visit she told me it was owing to a fright she received, by a lady calling her attention to a young girl having by accident lost the fingers of her left hand. To satisfy myself, I took occasion to visit the child (who lived hard by) with a view to compare her deformed hand with that of the babe. *In shape they were exactly alike*. In the young girl's case, there was at the third articulation what may be called a rudimentary finger, owing to a superabundance of flap when amputated. The same feature was present in the hand

of the babe, as well as all the cicatrices. In this case the mind received and transmitted the exact image, but it is doubtful whether the memory of the mother retained so faithful an impression. This coincidence is truly "as astounding as the doctrine itself," and will be found hard to explain away, other than by the assumption of the doctrine.

H. A. NEWPHER, M. D.

Reading, Pa., Oct. 12, 1870.

#### Coffee in Hernia.

EDITORS MEDICAL AND SURGICAL REPORTER:

A few weeks ago I was called in consultation to see a case of strangulated hernia. Upon examination, I found a tumor about the size of a large hen egg, situated in the right groin above Poupart's ligament.

The patient had noticed a small tumor, gradually increasing in size for the last six weeks, but it had given him no trouble until that morning, when it became much larger, very tense and very painful. Several efforts to reduce it had already been made without success. As an examination of the lungs disclosed evidences of tuberculosis, rendering it imprudent to administer chloroform, unless necessitated by an operation, I suggested the administration of strong coffee, which I had seen so highly extolled. He was placed in a hip bath, and cupful after cupful of very strong coffee given him, until the perspiration stood upon the surface in great drops, and his system was completely relaxed. He was then placed in bed—the foot of it being elevated two or three feet—and another effort made to reduce the hernia by taxis, before deciding to operate. Tracing the tumor with the right hand, I drew it downward, so as to stretch the neck of the sac, and then firmly compressed it between the fingers. At the end of a few minutes I was gratified to hear a gurgling noise, soon followed by the intestines slipping back. The next day, wearing a comfortably fitting truss, he was enabled to attend to his business, as usual.

I noticed that, in addition to the complete relaxation caused by the coffee, there was also a certain degree of insensibility to pain, for, during the reduction, the patient endured without flinching, an amount of manipulation of the tumor which before was unbearable.

The hernia was indirect, the strangulation being at the external ring.

F. C. WILSON, M. D.

Louisville, Ky., Oct. 11th, 1870.

#### Tænia Treated with Pumpkin Seed.

EDITORS MEDICAL AND SURGICAL REPORTER:

I have a case of tænia successfully treated in a lady twenty-two years of age by pumpkin seed.

She had been troubled and expelled portions from time to time for the last twelve years, and had of course been treated with all the remedies appropriate to such cases.

She consulted me about one week ago, and had just passed through a course of pumpkin seed tea, administered her by her attendant physician. Thinking the case a difficult one to cure, I sent to to Galveston, for Dundas, Dick & Co.'s capsules of oil, male fern and karnala, but in the meantime, advising another course of pumpkin seed. About one double handful, freed of their hulls, and beaten in a mortar to a paste and mixed with honey, were given while fasting during the day, and a dose of castor oil and turpentine at bed time. The next morning twelve feet of the worm, head and all, was expelled. T. C. THOMPSON, M. D.,

Columbus, Texas.

## NEWS AND MISCELLANY.

### Pharmaceutical Association in Vermont.

The druggists of Vermont met at Rutland a few days to form a State Pharmaceutical Association. Dr. C. L. Case, of Brandon, was chosen Chairman. A. W. Higgins, Sect. A Committee was appointed to draft a constitution and by-laws, to be presented at a subsequent meeting, to be held in Montpelier on the second Wednesday in November.

—It is the design to establish, in connection with the Louisville Medical College, a complete analytical laboratory, to be kept open nine months in the year, where students can pursue practically a complete course in qualitative and quantitative analysis and pharmacy.

## OBITUARY.

### ABRAHAM B. HUTTON, ESQ.

The object of this notice, although not a medical man, was so associated with medical matters in his capacity of Principal of the Pennsylvania Institution for the Instruction of the Deaf and Dumb, that a short notice of him is considered proper in a medical journal.

Mr. A. B. Hutton was born in Albany, New York, September 10, 1793, and received his literary instruction at Union College, where he graduated in 1817. Subsequently he entered as a student in the Theological Seminary at Princeton, New Jersey, in 1819. Owing to an affection of his throat he was obliged to relinquish the study of divinity. In March, 1822, he entered the Pennsylvania Institution for the Deaf and Dumb as an assistant teacher. In this capacity he gave such entire satisfaction that when Mr. Lewis Weld, the principal, was called to take charge of the American Asylum for the Deaf and Dumb at Hartford, Mr. Hutton was appointed, on the 4th of September, 1830, as his successor.

Mr. Hutton possessed all the requisites for his new po-

sition, having a cultivated mind and refined taste, with gentleness and firmness combined, also great aptness in teaching. His attainments in natural philosophy, mechanics and chemistry, were very considerable, and he took great pleasure in lecturing on these subjects both to the advantage of the pupils and the entertainment and instruction of the numerous visitors at their weekly exhibitions. But every thing was subservient to the great object of his life—the successful instruction of the deaf mute. To this subject he devoted all his energies, and was alive to every improvement. The success with which his labors were crowned, and the thorough appreciation of his efforts by the managers of the institution, his friends and the community at large, are the best evidence of his ability and fidelity.

For several years he suffered from an affection of his kidney, and yet he was always at his post. In the spring of 1869 the disease increased, and yet he did not leave the city until July, 1870, when he made a visit to his sister, and soon after died on the spot where he always wished to die, ministered to by the affectionate hands of those he loved. L. T.

## MARRIED.

ARD—MARTIN. At Spruce Hill, Pa., Sept. 22d, by Rev. J. C. Kelly, Dr. Wm. D. Ard, of New Bloomfield, Pa., and Miss Mira C. Martin, of Spruce Hill.

BOWERS—WALKER. In Crawfordsville, Ind., August 20th, at the residence of the bride's father, by Rev. R. F. Caldwell, Dr. Homer Bowers, of Valley City, Ind., and Miss Emma C. Walker, of Crawfordsville, Ind.

DALLAM—FIELD. At the residence of the bride's parents, on the 20th inst., by Rev. A. V. C. Schenck, Dr. John M. Dallam and Miss Hannah B. Field, all of Philadelphia.

FORWOOD—OSBORNE. At the residence of the bride's parents, Rose Valley, Pa., Sept. 28th, by Rev. Jas. Cunningham, LL.D., Wm. H. Forwood, Surgeon U. S. A., and Mary A. Y., youngest daughter of Antrim Osborne, Esq.

GRIFFIN—HOLLISTER. In New York city, Oct. 18th, at the residence of the bride's parents, by Rev. O. B. Frothingham, Bradney Griffin, M. D., and Linna, daughter of D. M. Hollister, Esq., all of that city.

ISHAM—KEYT. At the residence of the bride's parents, Walnut Hills, near Cincinnati, Ohio, Oct. 10th, by Rev. Geo. H. Fullerton, Dr. A. B. Isham and Miss Mary B. Keyt, daughter of Dr. A. T. Keyt.

KELLOGG—HESS. At Osceola, Iowa, on the 4th inst., by Rev. J. Osmond, Dr. H. D. Kellogg, of Kansas, and Miss Sallie E. Hess.

HARRISON—HESS. At the same time and place, by the same, Mr. J. C. Harrison and Maggie E. Hess.

MITCHELL—SPEARS. At the residence of the bride's mother, Mrs. A. Spears, Danville, Ky., Oct. 13th, by Rev. W. F. Junkin, Dr. W. G. Mitchell, of Kansas, and Miss Maggie Spears, of Danville.

MITCHELL—WIST. In the Presbyterian church of West Union, Sept. 6th, by Rev. H. B. Farrar, Dr. S. Mitchell, of Buffalo Village, Pa., and Miss Annie Wirt, of Dallas, W. Va.

## DIED.

BROWN—At Bloomingdale, New York city, Oct. 17th, James Phillips, eldest son of Cornelia W. and Dr. D. T. Den Brown, aged 19 years.

COBURN—In Calcutta, Ohio, suddenly of apoplexy, Sept. 19th, Dr. John Coburn, in the 49th year of his age.

MAUCK—At his residence, in Laurel, Del., on the 17th inst., of consumption, Aaron Mauck, M. D., in the 66th year of his age.

PRINGLE—Sept. 19th, Mrs. Margaret E., wife of Dr. G. W. Fringle, of New Concord, Ohio.

TUCKER—Oct. 10th, Dr. Laban Tucker, of Hartford, Vt., aged 67 years.

VAN BIBBER—In Cincinnati, O., Oct. 10th, Dr. James Van Bibber, aged 69 years.